

ability to compete with the ILEC.²³⁹ Pre-ordering transactions often represent the end customer's first contact with a competing carrier. Therefore, CLEC access to a BOC's pre-ordering functionality must be on a level that allows the CLEC to provide service to prospective customers in as efficient a manner as the BOC's retail operations. In both its Bell Atlantic New York Order and SBC Texas Order, the FCC established the standard by which a BOC's pre-ordering interfaces would be judged in determining whether the BOC provides nondiscriminatory access to its pre-ordering functionality. The FCC concluded that the BOC must offer CLECs an application-to-application interface that enables carriers to integrate responses from pre-ordering transactions into the BOC's ordering interfaces. Further, the BOC must make available to CLECs the same functionality that is available to the BOC's own retail representatives. Through transaction response times and interface availability performance measures, the BOC must be able to show that its pre-ordering OSS are capable of sustaining both current and reasonably foreseeable future demands.²⁴⁰ Finally, in its SBC Texas Order, the FCC concluded that the BOC must also make available to CLECs "nondiscriminatory access to OSS pre-ordering functions associated with determining whether a loop is capable of supporting xDSL advanced technologies."²⁴¹

²³⁹ Bell Atlantic New York Order at ¶ 129; SBC Texas Order at ¶ 148.

²⁴⁰ Bell Atlantic New York Order at ¶ 128; SBC Texas Order at ¶ 147.

²⁴¹ SBC Texas Order at ¶ 147 and n.394. The FCC noted in the SBC Texas Order that it did not evaluate SWBT's compliance with the loop qualification obligations under Rule (continued...)

The FCC has identified seven pre-ordering functions that it considers to be essential in providing competing carriers with nondiscriminatory access and a meaningful opportunity compete. The functions are: (1) retrieval of customer service records, (2) address validation, (3) telephone number selection and reservation, (4) service and feature availability, (5) due date availability, (6) loop qualification information inquiry, and (7) customer directory listing information.²⁴² The BOC must offer CLECs the ability to perform these functions in substantially the same time and manner as its own retail representatives.

ii. VZ-MA's Offering

VZ-MA has made available three interfaces for CLECs to use in conducting pre-ordering transactions. The web-based GUI is currently used by 79 CLECs in commercial production.²⁴³ VZ-MA also offers two application-to-application interfaces. The EDI interface is currently used by 15 Massachusetts CLECs, and the Common Object Request Broker Architecture ("CORBA") interface is available to all CLECs, but is currently being utilized only by AT&T in commercial production.²⁴⁴ The pre-ordering OSS back-end systems used by

²⁴¹(...continued)

319 that went into effect in May 2000, but that future § 271 applicants will be expected to show compliance with these obligations.

²⁴² Bell Atlantic New York Order at ¶ 132.

²⁴³ VZ-MA Application, Appdx. B, Vol. 46, Tab 533, at 4575 (Transcript of Technical Session Held 8/21/00).

²⁴⁴ Id.; see also VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶ 33 (VZ-MA May (continued...))

CLECs in Massachusetts are the same as those used in both New York and the remainder of New England. Over the first six months of this year, VZ-MA notes that these systems processed over 2.7 million transactions across the region.²⁴⁵ VZ-MA also notes that its pre-ordering systems can be integrated to automatically populate Local Service Requests (“LSRs”), and that VZ-MA has assisted CLECs in integration by participating in collaborative sessions, making address components consistent across the region, and synchronizing the field names for pre-order and order data elements.²⁴⁶

VZ-MA provides CLECs with access to all of the same pre-order functions that are available to CLECs in New York. The available pre-order functions include: (1) customer service record (“CSR”) retrieval; (2) address validation; (3) telephone number (“TN”) selection and reservation; (4) product and service availability; (5) due date availability; (6) loop qualifications for ISDN and xDSL; (7) directory listing information request; (8) installation status inquiry; and (9) service order inquiry.²⁴⁷ VZ-MA measures and reports response times for each of the available pre-order transactions using a simulated response

²⁴⁴(...continued)
OSS Aff.).

²⁴⁵ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 23 (VZ-MA August Supplemental OSS Aff.).

²⁴⁶ VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶ 37 (VZ-MA May OSS Aff.).

²⁴⁷ VZ-MA Application, Appdx. B, Vol. 1, Tab 2, ¶ 19 (Miller Aff.).

system known as EnView.²⁴⁸ The EnView system simulates the various pre-order transactions for both retail and wholesale in six-minute increments, or ten times per hour.²⁴⁹ VZ-MA measures pre-order transactions against a standard of parity, plus not more than four seconds, which is the same standard used by Verizon in New York, for both the EDI and CORBA interfaces.²⁵⁰ The lone exception to this standard is VZ-MA's standard for the parsed CSR transaction, which takes the standard CSR response and divides the information into separate fields for population into an LSR, and which has no direct retail equivalent. VZ-MA's parsed CSR transaction is measured against a standard of parity to retail non-parsed CSR, plus not more than ten seconds.

For the months of April through July 2000, VZ-MA met its performance standards for each pre-order transaction over the EDI interface. For the CORBA interface, VZ-MA missed its performance standards on only three occasions – product and service availability in May, and rejected query response for both June and July. No standard has been developed for GUI pre-order response times as GUI pre-order is not a part of the C2C Guidelines. However, VZ-MA provided GUI pre-order response times for August 1999 through March 2000 as part of its

²⁴⁸ VZ-MA Application, Appdx. B, Vol. 32a, Tab 423, ¶ 19 (VZ-MA May Measurements Aff.).

²⁴⁹ Id. at ¶ 25.

²⁵⁰ Id. at ¶ 20.

May 2000 filing with the Department.²⁵¹ Over this eight month period, VZ-MA's GUI response time performance exceeded ten seconds only once. The response time for TN selection in November 1999 was 15.65 seconds versus a retail response time of 1.68 seconds.

VZ-MA's OSS interfaces are scheduled to be available to CLECs on a 24 hour per day basis. The C2C standard for VZ-MA's interface availability is 99.5 percent available during scheduled prime-time hours. VZ-MA defines prime-time hours as being 6:00 am to midnight Monday through Saturday, excluding holidays.²⁵² VZ-MA notes that if a back-end OSS system is unavailable, then neither CLEC nor VZ-MA representatives will be able to access the information on that system. Therefore, CLECs are adversely affected compared to retail representatives only when the front-end OSS interface is unavailable. VZ-MA measures interface availability through a combination of EnView-simulated transactions and CLEC-reported outages. VZ-MA applies a weighting to CLEC-reported outages based on the number of CLECs affected by the unavailability of a particular interface connection method.²⁵³

VZ-MA measures the availability of each of its three interfaces separately. Between April and July 2000, VZ-MA's EDI interface has consistently been available more than 99 percent of the time during prime-time hours. Only in May 2000 did VZ-MA's EDI interface

²⁵¹ See id. at Exh. C.

²⁵² VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶ 43 (VZ-MA May OSS Aff.).

²⁵³ VZ-MA Application, Appdx. B, Vol. 46, Tab 538, at 4688-89 (Transcript of Technical Session Held 8/22/00).

prime-time availability fall below the C2C standard. However, during that month VZ-MA's EDI interface was still available for 99.06 percent of scheduled prime-time hours. Over the same period, VZ-MA's CORBA interface showed only slightly less performance for prime-time availability. While the CORBA availability measure only surpassed the 99.5 percent C2C standard in July, only once did the CORBA availability fall below 99 percent. In May 2000 CORBA scheduled prime-time availability was measured by VZ-MA to be 98.99 percent.

In its August 2000 Supplemental Filing with the Department, VZ-MA described a series of problems that had caused CLECs to experience delays in accessing the GUI. VZ-MA noted that, on July 25, 2000, a memorandum was sent to CLECs via the Change Management process outlining three system infrastructure problems that VZ-MA had addressed to improve the performance and availability of the GUI.²⁵⁴ VZ-MA reported in its August Supplemental Checklist Affidavit that CLEC trouble tickets regarding the GUI dropped from a level of 94 per week during the period of May 1 through June 22, prior to VZ-MA's fixes of the system problems, to only 15 trouble tickets during the week of July 14 through July 20. Further, of those 15 trouble tickets opened during the week of July 14, none related to system unavailability.²⁵⁵

VZ-MA claims its performance metrics for the GUI availability is consistent with its

²⁵⁴ See VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶¶ 27-28 and Exh. E (VZ-MA August Supplemental OSS Aff.).

²⁵⁵ Id. at ¶ 28.

explanation of the problems experienced with the GUI during May and June. While GUI scheduled prime-time availability for May (99.06 percent) and June (97.45 percent) missed the C2C standard, VZ-MA's GUI availability performance for July was well above the 99.5 percent threshold, as VZ-MA reports 99.93 percent availability for the months of July.

Finally, VZ-MA also provides CLECs with information necessary to determine whether a loop is qualified to provide advanced services, such as xDSL, to an end customer. VZ-MA states that CLECs may obtain loop qualification information through any of three methods. First, CLECs may use VZ-MA's pre-order interface to request loop information from VZ-MA's mechanized loop qualification database. CLECs can also request manual loop qualifications from VZ-MA to obtain information that is not available in the mechanized database. Finally, VZ-MA offers CLECs the opportunity to request an engineering query for specific loops in order to obtain detailed loop make-up information. VZ-MA's loop qualification offerings are discussed in detail under checklist item 4.

iii. Competitors' Positions and VZ-MA's Response

During the Department's § 271 proceedings, various CLECs questioned VZ-MA's ability to provide nondiscriminatory access to its OSS pre-ordering functions. These CLEC questions deal primarily with VZ-MA's alleged inability to provide certain pre-order functionality and with problems surrounding VZ-MA's interface availability.

Covad contends that VZ-MA's pre-order functions are not accessible to CLECs in the same manner in which they are available to VZ-MA's own retail representatives. Covad

argues that address validation “is a clumsy and frustrating process because it requires exact duplication of the address as it appears in BA’s records.”²⁵⁶ Covad further contends that once it is able to validate a customer’s address, it must consult its own records to obtain the serving central office information because VZ-MA’s pre-order responses do not include such information.²⁵⁷ Covad also argues that, unlike CLECs, VZ-MA retail representatives are able to obtain customers’ CSR information using only their telephone numbers. Covad contends that this does not represent parity of service.²⁵⁸

VZ-MA refutes Covad’s claims about pre-order functionality and notes that the CLEC Handbook and Pre-Order Business Rules explain in detail how Covad and other CLECs can obtain the information Covad states it must obtain from its own internal records. VZ-MA notes that serving central office information and the switch common language location identification (“CLLI”) code are available as part of the response to address validation transactions and that the procedures for obtaining that information are explained in the Pre-Order Business Rules. VZ-MA also points out that the details relating to the proper entry of addresses in the address validation transaction are included in the Pre-Order Business Rules. VZ-MA retail representatives follow the same Business Rules for these pre-order functions as

²⁵⁶ VZ-MA Application, Appdx. B, Vol. 38, Tab 462, ¶ 28 (Covad Szafraniec/Katzman). Decl.).

²⁵⁷ Id. at ¶¶ 29-30.

²⁵⁸ Id. at ¶ 19.

CLECs are required to follow.²⁵⁹ Finally, VZ-MA responds to Covad's assertions regarding the alleged disparity in access to CSR information by stating that Covad, and all other CLECs, have immediate access to any customer or prospective customer's CSR information through any of the three OSS interfaces available to CLECs.²⁶⁰

In the area of interface availability, a number of the CLEC's complaints are addressed by the GUI system infrastructure changes implemented by VZ-MA in May and June 2000.²⁶¹ However, both AT&T and WorldCom contend that there are still problems with VZ-MA's interface availability, and both CLECs argue that VZ-MA's reported performance is inaccurate. AT&T contends that the CORBA interface is frequently unavailable, and that AT&T consistently experiences time-outs while performing pre-order functions. AT&T states that VZ-MA has not provided any root-cause analysis of the problems with the CORBA interface, and that VZ-MA's method for resolving many of these errors is to re-boot its servers to resume service. AT&T provided to the Department a listing of pre-order interface errors it has experienced since November 1999, including 63 performance problems experienced since

²⁵⁹ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 21 (VZ-MA August Supplemental OSS Aff.).

²⁶⁰ Id. at ¶ 22.

²⁶¹ See VZ-MA Application, Appdx. B, Vol. 46, Tab 538, at 4800 (Transcript of Technical Session Held 8/22/00).

April 1, 2000.²⁶² Of the problems experienced since April 1, AT&T highlights a three-day outage from April 17 to 19 that AT&T contends casts doubt on VZ-MA's reported interface availability for April 2000.²⁶³

WorldCom contends that Verizon's GUI performance has been consistently flawed, even after the system fixes were put in place in May and June. During technical sessions, WorldCom witnesses noted that WorldCom had experienced GUI outages on June 29 and 30, and July 1, 8, 15, 20, 21, 22, and 23. WorldCom noted that it opened trouble tickets with Verizon on July 8, 15, and 20.²⁶⁴ WorldCom further argues that during times when the GUI has been available, the interface has worked very slowly and has made it difficult for WorldCom to submit transactions via that interface.²⁶⁵

VZ-MA asserts that AT&T's complaints regarding the availability of the CORBA interface are misleading. During a technical session held on August 22, VZ-MA witness McLean explained that because CORBA is a synchronous interface, a transaction must make a complete cycle from the CLEC to VZ-MA and back to the CLEC in order for the system to

²⁶² See VZ-MA Application, Appdx. B, Vol. 44, Tab 506 (AT&T's Response to DTE-ATT-1-5).

²⁶³ Id.; see also VZ-MA Application, Appdx. B, Vol. 46, Tab 538, at 4822-23 (Transcript of Technical Session Held 8/22/00).

²⁶⁴ VZ-MA Application, Appdx. B, Vol. 46, Tab 538, at 4854-55 (Transcript of Technical Session Held 8/22/00).

²⁶⁵ VZ-MA Application, Appdx. B, Vol. 37, Tab 455, ¶ 100 (WorldCom Lichtenberg/Sivori Decl.).

record that the interface is properly functioning.²⁶⁶ McLean explained that when there are problems with the CORBA interface, both VZ-MA and the CLEC must work together to diagnose the source of the problem. McLean noted that AT&T failed to mention that this type of cooperative effort is currently occurring on between VZ-MA and AT&T regarding instances of interface timeouts when AT&T submits an address validation transaction immediately followed by a parsed CSR request.²⁶⁷

In response to the contentions of both AT&T and WorldCom, VZ-MA provided a summary of all CLEC-reported pre-order interface troubles from April through July.²⁶⁸ VZ-MA reports that during this period, CLECs reported 84 distinct troubles (some troubles were repeated in multiple trouble tickets). Of these 84 instances, 52 actually indicated interface outages that would be reflected in VZ-MA's performance measures. Nineteen instances related to the unavailability of specific transactions or back-end OSS systems. VZ-MA notes that these instances were experienced equally by VZ-MA's retail representatives. Of the remaining 13 reported troubles, five were instances of slow response, three were related to CLECs' connectivity problems, three were unrelated to pre-order, and in two cases VZ-MA

²⁶⁶ VZ-MA Application, Appdx. B, Vol. 46, Tab 538, at 4691-92 (Transcript of Technical Session Held 8/22/00).

²⁶⁷ Id. at 4693-94.

²⁶⁸ See VZ-MA Application, Appdx. B, Vol. 47, Tab 560 (VZ-MA's Response to RR-DTE-330).

found no problems during its investigation of the reported trouble.²⁶⁹ VZ-MA also provides information specifically related to WorldCom's assertion that there have been numerous planned and unplanned interface outages since VZ-MA implemented its GUI infrastructure changes in May and June.²⁷⁰ VZ-MA reports that none of WorldCom's reported outages were instances of interface unavailability. In every case reported by WorldCom, VZ-MA explains that the outages were related only to specific back-end OSS systems that similarly affected retail and wholesale transactions. Further, only one of WorldCom's reported outages – the July 8 unavailability of address validation, TN reservation, and xDSL loop qualification from 10:00 p.m. to midnight – affected CLECs operating in Massachusetts. Unlike WorldCom's claim, though, VZ-MA notes that this was a planned unavailability and references Change Request (CR) #1547 as evidence that CLECs were notified of this instance in advance of the planned unavailability.²⁷¹

iv. KPMG's Findings

In its evaluation of VZ-MA's OSS, KPMG combined the Pre-Order, Order, and Provisioning areas of VZ-MA's wholesale systems and processes into a single domain. The combination of these three aspects of VZ-MA's wholesale offerings enabled KPMG to conduct

²⁶⁹ Id.

²⁷⁰ See VZ-MA Application, Appdx. B, Vol. 47, Tab 557 (VZ-MA's Response to RR-DTE-341).

²⁷¹ Id.

its test in a manner that better resembles the experiences an actual CLEC would have competing in the Massachusetts local market. Throughout the Pre-Order, Order, and Provisioning (“POP”) domain, KPMG evaluated 204 individual test points. While KPMG’s evaluation was integrated in most respects, this aspect of KPMG’s test examined the areas of Pre-Order, Order, and Provisioning separately wherever possible. Within the POP domain, KPMG evaluated VZ-MA’s pre-order capabilities through the EDI and GUI functional evaluations, the EDI and GUI volume performance evaluations, the VZ-MA documentation review, and the review of VZ-MA’s capacity management planning. KPMG also reviewed VZ-MA’s pre-order performance metrics reporting processes as part of its Performance Metrics review.

KPMG evaluated VZ-MA’s pre-order transaction functionality through the submission of test transactions over both the EDI and GUI interfaces. KPMG’s EDI and GUI functional evaluations examined the availability of the pre-order interfaces and VZ-MA’s capability to provide timely and accurate responses to a variety of pre-order transactions. The functional evaluations also included the submission of pre-order transactions with planned errors to ensure VZ-MA’s systems are capable of providing accurate error responses that contain the necessary information for a CLEC representative to correct and resubmit the transaction.²⁷²

While KPMG’s functional evaluations focused predominantly on VZ-MA’s LSOG-2 interface,

²⁷² VZ-MA Application, Appdx. I, Vol. 1, Tab 1, at 15, 71 (KPMG Final Report Version 1.4).

KPMG also submitted transactions over the LSOG-4 interface to ensure that the LSOG-4 interface also provides CLECs with sufficient functionality.

In its evaluation of VZ-MA's pre-order functionality, KPMG states that it found VZ-MA's pre-ordering interfaces to be available on a consistent and reliable basis. Through a review of VZ-MA's Change Control notices and its own usage experiences, KPMG reports that VZ-MA's EDI pre-ordering interface was available 100 percent of the scheduled prime-time hours for the duration of KPMG's testing.²⁷³ KPMG also reports that VZ-MA's GUI was available 99.85 percent of scheduled prime-time hours during KPMG's test period.²⁷⁴

KPMG reports that, during the conduct of its functional evaluations, VZ-MA's pre-order systems returned responses for 94 percent of KPMG's EDI pre-order transactions.²⁷⁵

²⁷³ Id. at 47.

²⁷⁴ Id. at 100.

²⁷⁵ Id. at 48. KPMG characterized the problems it experienced in receiving responses for CSR inquiries and Installation Service Requests (ISRs) over the EDI interface in Exception Report #13. KPMG noted in its Exception that these problems, if not corrected, could impede CLECs' ability to conduct business over the EDI interface. See VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Exception Report #13). VZ-MA responded to KPMG's Exception by explaining that some of KPMG's CSR errors were the result of KPMG's use of a resale account ID to perform transactions that do not apply to resale services. VZ-MA stated that a database error had caused the remainder of the CSR errors. See VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (VZ-MA Response to Exception #13). VZ-MA fixed the error and KPMG was able to successfully retest its CSR inquiries. See VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Disposition Report for Exception #13). With respect to the ISR problems noted by KPMG, VZ-MA implemented a system fix to the EDI software on July 28, 2000 and KPMG successfully retested these inquiries. See id.

KPMG notes, however, that VZ-MA implemented system improvements to various pre-order systems during the functional evaluations, and that KPMG received responses on 98 percent of its pre-order transactions.²⁷⁶ KPMG notes that the average response times for its due date availability, address validation, and parsed and unparsed CSR pre-order transactions met the parity plus four second C2C standard.²⁷⁷ KPMG reports that the response times for its product service availability transactions did not meet the C2C standard; however, 95 percent of KPMG's product service availability transactions were received within ten seconds.²⁷⁸

As to the accuracy of VZ-MA's pre-order responses, KPMG states that the information included on responses were correct for all pre-order transaction types with the exception of one field in the address validation transaction. KPMG explains that "SUIT" (an abbreviation for "suite") or "UNIT" was returned in place of "APT" for 64 percent of the address validation transactions examined.²⁷⁹ Finally, KPMG reports that its functional evaluation of VZ-MA's

²⁷⁶ VZ-MA Application, Appdx. I, Vol. 1, Tab 1, at 48 (KPMG Final Report Version 1.4).

²⁷⁷ Id. at 49.

²⁷⁸ Id.

²⁷⁹ Id. at 57. VZ-MA states that the errors KPMG reported with respect to the return of "SUIT" or "UNIT" designations where "APT" was expected are the result of the manner in which KPMG's test bed of accounts was created. VZ-MA explains that KPMG's test accounts were manually entered into both the address database and the VZ-MA billing systems by two separate groups of VZ-MA employees. VZ-MA states that the two groups entered the addresses with different designations, creating the opportunity for KPMG to receive unexpected address validation responses. VZ-MA

(continued...)

LSOG-4 EDI pre-order interface revealed equally strong performance.²⁸⁰

With respect to the LSOG-2 GUI, KPMG reports that it received responses on 100 percent of its pre-order transactions.²⁸¹ With respect to the accuracy of VZ-MA's GUI pre-order responses, KPMG states that its responses were complete and accurate in most cases, but that it did experience problems with the "INQNUM" field missing from responses.²⁸² In its LSOG-4 GUI functional evaluation, KPMG reports that VZ-MA provides responses for all of the pre-order transactions. KPMG notes that it experienced the same problems in LSOG-4 with the missing "INQNUM" field, but states that "INQNUM" data was returned in the "PON" field in KPMG's LSOG-4 GUI pre-order responses.²⁸³

KPMG also tested VZ-MA's EDI and GUI pre-order interfaces as part of its Volume Performance Test. KPMG's Volume Performance Test evaluated VZ-MA's ability to handle

²⁷⁹(...continued)

notes that this error can not occur in a commercial environment because "address data is updated via a mechanized feed into Livewire and service representatives utilize that information in preparing service orders for new accounts." See VZ-MA Application, Appdx. B, Vol. 47, Tab 560 (VZ-MA's Response to RR-DTE-354).

²⁸⁰ VZ-MA Application, Appdx. I, Vol. 1, Tab 1, at 61-64 (KPMG Final Report Version 1.4).

²⁸¹ Id. at 101.

²⁸² Id. at 104. "INQNUM" stands for Inquiry Number. This field is used to identify a tracking number, similar to a Purchase Order Number ("PON"), that links the CLEC's pre-order inquiry with VZ-MA's pre-order response.

²⁸³ Id. at 107.

CLEC transactions at projected daily, peak, and stress volumes for October 2000.²⁸⁴ KPMG conducted the Volume Performance Test at the same time that it was submitting individual transactions for the functional evaluations of VZ-MA's interfaces. Though the results are reported separately, KPMG examined both the EDI and GUI interfaces simultaneously in its Volume Performance Test.²⁸⁵

During the Volume Performance Test, KPMG received responses for 99.9 percent of the transactions submitted via the EDI interface and 99.8 percent of transactions submitted over the GUI.²⁸⁶ KPMG also reports that VZ-MA returned timely pre-order responses for both interfaces under volume conditions. While VZ-MA's transaction responses met C2C standards for only some transactions, KPMG experienced an average response time of greater than ten seconds for only its EDI and GUI mechanized xDSL Loop Qualification ("LXR")

²⁸⁴ Id. at 15, 71.

²⁸⁵ In a Letter Order issued May 12, 2000, the Department denied a motion submitted by AT&T to conduct volume testing of VZ-MA's LSOG-4 production environment. The Department stated in the Letter Order that since the LSOG-2/3 production environment continues to be the predominant environment for CLECs submitting commercial transactions in Massachusetts, KPMG's volume testing should be focused on VZ-MA's ability to handle foreseeable volumes in that environment. The Department further noted that it had directed KPMG to conduct functionality testing of VZ-MA's LSOG-4 environment to ensure that CLEC transactions submitted to VZ-MA via LSOG-4 are capable of being processed correctly by VZ-MA's systems, and, hence, the Department found "a volume test of the LSOG-4 [production environment] release to be unwarranted." See VZ-MA Application, Appdx. B, Vol. 30, Tab 409, at 2 (Letter Order on AT&T's Motion to Adjust the Master Test Plan and to Clarify the Procedural Schedule).

²⁸⁶ Id. at 48, 101.

transactions.²⁸⁷

KPMG's POP Documentation Review evaluated the published documents that VZ-MA makes available to CLECs to assist them in using VZ-MA's pre-order interfaces. KPMG evaluated VZ-MA's documentation on the basis of whether it provides clear, accurate, and complete information to allow a CLEC representative to submit successfully pre-order transactions and to correct errors in pre-order transactions.²⁸⁸ As part of its review, KPMG conducted interviews with both the VZ-MA staff responsible for developing pre-order documentation and the CLECs that use VZ-MA documentation in performing their pre-order transactions.²⁸⁹ In its report, KPMG states that it finds VZ-MA's pre-order documentation satisfactory to meet the needs of CLECs conducting business through VZ-MA's pre-ordering interfaces.²⁹⁰ KPMG notes that inconsistencies between separate sets of documentation discovered during the course of its test were corrected to achieve consistency between publications.²⁹¹

²⁸⁷ Id. at 55, 102-103.

²⁸⁸ Id. at 131-133.

²⁸⁹ Id. at 141.

²⁹⁰ Id. at 141-150.

²⁹¹ Id. at 144. KPMG issued Exception Reports #4, #10, and #12 during its evaluation, identifying a number of inconsistencies in VZ-MA's pre-order documentation and areas where VZ-MA's was not considered to contain sufficient detail to enable CLECs to submit complete and accurate pre-order inquiries. See VZ-MA Application, Appdx. I, (continued...)

KPMG conducted a capacity management review of VZ-MA's pre-ordering systems to assess whether VZ-MA has in place adequate procedures and tools to manage the projected growth in CLEC demand. In conducting this evaluation, KPMG reviewed relevant VZ-MA documentation and conducted interviews with VZ-MA personnel.²⁹² KPMG concludes in its report that VZ-MA's capacity management process is adequate to meet both current and projected future volumes of CLEC transactions.²⁹³

As part of its Performance Metric Review, KPMG evaluated VZ-MA's methods for recording, calculating and reporting its performance metrics related to pre-ordering functions.²⁹⁴ KPMG examined the EnView system used by VZ-MA to verify interface

²⁹¹(...continued)

Vol. 2, Tab 2 (Exception Report #4); see also VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Exception Report #10); see also VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Exception Report #12). In its Disposition Reports for these three Exceptions, KPMG states that, for each identified and confirmed error, VZ-MA implemented the necessary changes to improve the quality and accuracy of its pre-order documentation. See VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Disposition Report for Exception #4); see also VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Disposition Report for Exception #10); see also VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Disposition Report for Exception #12).

²⁹² VZ-MA Application, Appdx. I, Vol. 1, Tab 1, at 235 (KPMG Final Report Version 1.4).

²⁹³ Id. at 235-238.

²⁹⁴ KPMG's Performance Metrics Review also included a data integrity investigation and a transaction test report generation component. These components were not performed with respect to pre-ordering metrics because the EnView system data used to calculate pre-ordering metrics are simulated and do not represent real transactions. See VZ-MA (continued...)

availability and to simulate retail and wholesale pre-order transaction response times. KPMG reports that it was able to replicate most of VZ-MA's reported pre-ordering response time metrics for December 1999 and January and February 2000, but experienced problems with the replication of interface availability metrics.²⁹⁵ KPMG attributed these problems to VZ-MA's lack of formal change management procedures for pre-order metrics calculation, and notes that VZ-MA did not track changes to the metrics calculation algorithms in the "Global Change Tracking Register."²⁹⁶

²⁹⁴(...continued)

Application, Appdx. I, Vol. 1, Tab 1, at 650, 685 (KPMG Final Report Version 1.4).

²⁹⁵ Id. at 660-661.

²⁹⁶ Id. at 664-668. KPMG characterized the problems with VZ-MA's pre-ordering and provisioning metrics change control processes in Exception Report #14. KPMG explained that VZ-MA had changed numerous algorithm scripts between December 1999 and February 2000 without providing any documentation that such changes had been made. KPMG concluded that these undocumented changes hindered KPMG's ability to replicate VZ-MA's reported pre-ordering and provisioning metrics. See VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (Exception Report #14). In response to KPMG's findings, VZ-MA notes that it has recently implemented a metrics change control process. See VZ-MA Application, Appdx. I, Vol. 2, Tab 2 (VZ-MA Response to Exception #14). However, while KPMG stated that VZ-MA's change control process appeared to satisfy all of KPMG's reported problems, VZ-MA's implementation of this process could not be reviewed by KPMG prior to the conclusion of its OSS evaluation. Therefore, on October 8 and 9, 2000, the Department undertook to review and assess VZ-MA's compliance with its defined metrics change control process. See VZ-MA Application, Appdx. B, Vol. 46, Tab 545, at 4877-4878 (Transcript of Technical Session Held 8/28/00).

In conducting its review of VZ-MA's metrics change control process, the Department followed the same process used by KPMG in its OSS evaluation. First, the
(continued...)

v. Conclusions

Based upon the evidence in the record, and the independent testing of KPMG, the Department finds that VZ-MA provides competitors with nondiscriminatory access to its pre-ordering OSS functions. Specifically, the Department finds that VZ-MA's EDI and GUI interfaces offer CLECs access to pre-ordering functions in substantially the same time and manner as VZ-MA makes such functions available to its own retail representatives. The Department also finds that VZ-MA has implemented the necessary processes to satisfy the metrics change control issues raised by KPMG in its third-party evaluation. Further, the Department can not accord significant weight to the CLECs' arguments, which are not supported by either KPMG's evaluation or VZ-MA's current performance metrics, to warrant a finding of noncompliance with the pre-ordering aspects of VZ-MA's requirement to provide nondiscriminatory access to its OSS.

f. Ordering

i. Standard of Review

In meeting its obligation to provide nondiscriminatory access to its ordering systems,

²⁹⁶(...continued)

Department compared the reported results of August 2000 performance measures calculated under both the August and July algorithms. The Department then examined any discrepancies between the two sets of results and checked the differences against VZ-MA Change Control Notices. The Department found that in every case, VZ-MA had provided advance notice of metrics calculation changes through a formal Change Control Notice. The Department concludes that VZ-MA's defined metrics change control process sufficiently records changes to the metrics calculation process and allows for effective tracking of such changes.

the FCC has found that a BOC must show that:

(i) it is able to return timely order confirmation and rejection notices; (ii) its systems flow-through a high percentage of orders without manual handling, at a rate that is comparable overall to the flow-through rate for its retail services; (iii) the mechanized orders that do not flow-through are handled in a reasonably prompt and accurate manner; (iv) the mechanized and manual components of its ordering systems are scalable to accommodate increasing demand; (v) it provides jeopardy notices in a nondiscriminatory manner; and (vi) it provides timely order confirmation notices.²⁹⁷

For those ordering functions that have a retail analogue, the FCC has determined that the BOC must provide service to CLECs in “substantially the same time and manner as it provides to its retail operations,” and for those with no retail analogue, the BOC must show that it allows “an efficient competitor a meaningful opportunity to compete.”²⁹⁸

In its Bell Atlantic New York Order, the FCC explained that flow-through rates are not a definitive indicator of the BOC’s ability to provide nondiscriminatory access to its ordering systems, but rather are “a tool used to indicate a wide range of possible deficiencies in a BOC’s OSS that may deny an efficient competitor a meaningful opportunity to compete in the local market.”²⁹⁹ In the absence of high flow-through rates, the FCC has noted that it will examine more closely the other factors involved in its review of the BOC’s ordering

²⁹⁷ SBC Texas Order at ¶170.

²⁹⁸ Id.

²⁹⁹ Bell Atlantic New York Order at ¶ 162.

functionality.³⁰⁰

ii. VZ-MA's Offering

VZ-MA provides CLECs with the ability to submit LSRs electronically over both the web-based GUI and the EDI application-to-application interface. Currently, 15 Massachusetts CLECs are using the EDI interface to submit commercial transactions in Massachusetts.³⁰¹ VZ-MA notes that it processed over 48,000 LSRs in Massachusetts in July 2000, a 92 percent increase over the same period in 1999,³⁰² and the same systems and work centers that process Massachusetts orders are responsible for processing nearly 500,000 orders per month throughout New England and New York.³⁰³ VZ-MA also notes that it is processing orders for CLECs in each of the delivery methods available. Of the 48,000 LSRs processed in July, VZ-MA states that approximately 25,500 were for UNE loops, 5,000 were for UNE-P combinations, and 17,500 were resale orders.³⁰⁴ While CLECs are able to use the LSOG-4 industry guidelines for their ordering systems in Massachusetts, most CLECs continue to utilize the LSOG-2 industry guidelines. In July, 99.5 percent of the LSRs submitted over the

³⁰⁰ Id. at ¶ 163.

³⁰¹ VZ-MA Application, Appdx. B, Vol. 46, Tab 533, at 4575 (Transcript of Technical Session Held 8/21/00).

³⁰² Id.

³⁰³ VZ-MA Application, Appdx. B, Vol. 46, Tab 538, at 4864 (Transcript of Technical Session Held 8/22/00).

³⁰⁴ Id. at 4734-35.

EDI interface were submitted under the LSOG-2 guidelines.³⁰⁵

VZ-MA processes CLEC orders received via the GUI and EDI interfaces and returns either a confirmation or reject notice over the same interface the CLEC used to submit the order. VZ-MA tracks a number of C2C Guidelines with respect to its obligation to return timely order confirmation and reject notices. For orders that flow-through VZ-MA's ordering systems without manual handling, VZ-MA is obligated to return 95 percent of confirmation and reject notices within two hours of the receipt of the LSR. For orders that require manual processing, VZ-MA follows two standards based upon the number of lines involved on the LSR. VZ-MA must return 95 percent of confirmations and rejects within 24 hours on LSRs with less than 10 lines, and within 72 hours for LSRs with 10 or more lines.³⁰⁶ As part of its C2C requirements, VZ-MA provides performance measurements for confirmation and reject notice timeliness separately for both resale and UNEs, and within each of those product types VZ-MA distinguishes between specific types of orders.³⁰⁷

VZ-MA's performance for confirmation and reject notice timeliness has been generally strong over the period of April through July 2000. Over the four-month period, VZ-MA

³⁰⁵ VZ-MA Application, Appdx. B, Vol. 47, Tab 550 (VZ-MA's Response to RR-DTE-331).

³⁰⁶ VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶ 68 (VZ-MA May OSS Aff.); see also VZ-MA Application, Appdx. B, Vol. 32a, Tab 423, ¶¶ 35-36 (VZ-MA May Measurements Aff.).

³⁰⁷ VZ-MA Application, Appdx. B, Vol. 32a, Tab 423, ¶¶ 36-37 (VZ-MA May Measurements Aff.).

missed its C2C standard for only four different areas. First, VZ-MA's performance for resale Complex Local Service Request Confirmations ("LSRCs")³⁰⁸ was 81.81 percent in April and 93.33 percent in May, but exceeded the standards in both June and July. VZ-MA's UNE-Loop reject timeliness for orders with fewer than ten lines was below the C2C standard in April (92.49 percent), May (91.58 percent), and June (91.41 percent), but met the standard for July. Third, in June, VZ-MA fell below the C2C standard in its performance on the return of LSRCs for resale plain-old-telephone service ("POTS") orders with ten or more lines. However, VZ-MA's performance during June for this measure was 93.15 percent, and VZ-MA met the standard of 95 percent in each of the other three months. Finally, VZ-MA missed its C2C standard for only one confirmation or reject notice metric in July, with a UNE-P flow-through reject rate of 94.90 percent.

Throughout the Department's proceedings much emphasis has been placed on VZ-MA's flow-through performance for CLEC orders. VZ-MA notes that high levels of order flow-through are desirable for both VZ-MA and the CLECs.³⁰⁹ However, the rate of order flow-through is also dependent on the efforts of both VZ-MA and the CLECs and on the order types. VZ-MA has worked diligently to improve the areas of order flow-through that it can control directly, and the Company has also worked with the CLECs to enable them to improve

³⁰⁸ The term LSRC can be used interchangeably with Firm Order Confirmation ("FOC").

³⁰⁹ VZ-MA Application, Appdx. B, Vol. 46, Tab 538, at 4863 (Transcript of Technical Session Held 8/22/00).

the quality of their orders so that more eligible orders do flow-through VZ-MA's systems.

VZ-MA's ordering OSS systems automatically perform a series of checks and edits on CLEC LSR submissions to determine first whether or not the order is of a type that is designed to flow-through. If the order is flow-through eligible, VZ-MA's systems check the LSR to ensure that all necessary information is present on the LSR and is in the correct format. As of June 17, 2000, VZ-MA's systems were able to flow-through more than seventy different ordering scenarios across the three services of resale, UNE-P, and UNE-Loops.³¹⁰ Since November 1999, VZ-MA has implemented 51 system improvements to its flow-through order process.³¹¹ Among the improvements that VZ-MA has made, CLEC orders for UNE-P arrangements with additional lines, Ringmate service, and UNE-Loop migrations with hunting features are now eligible to flow-through VZ-MA's OSS.³¹² Additionally, VZ-MA changed the telephone number field requirements for resale orders, causing a drop in order fall-out from 1,214 in December to only 33 in January 2000.³¹³ Finally, on June 17, 2000, VZ-MA implemented further system enhancements to its order flow-through allowing pre-qualified

³¹⁰ See VZ-MA Application, Appdx. B, Vol. 34b, Tab 443 (VZ-MA's Response to DTE-WorldCom-4-12).

³¹¹ VZ-MA Application, Appdx. B, Vol. 46, Tab 533, at 4578-79 (Transcript of Technical Session Held 8/21/00).

³¹² VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶¶ 61-62 (VZ-MA May OSS Aff.).

³¹³ Id. at ¶ 63.

ADSL orders of less than 10 lines to flow-through its OSS.³¹⁴

In addition to making improvements to its own systems to improve flow-through performance, VZ-MA has also assisted CLECs in improving their orders to achieve greater flow-through results. VZ-MA provides flow-through documentation to CLECs over its wholesale web site and through its Change Management process. Further, in November 1999 VZ-MA began holding monthly CLEC flow-through workshops. The purpose of these workshops is to review the problems that CLECs have experienced in attaining high levels of order flow-through and to discuss with the CLECs the methods by which they can improve their flow-through performance. VZ-MA notes that while these flow-through workshops have been built around the flow-through problems experienced in New York, any improvements to order flow-through are experienced equally in Massachusetts. Finally, VZ-MA notes that it has developed a “complete inventory of flow-through errors by individual CLEC and by mode-of-entry” to enable CLECs to eliminate repeat errors of similar types.³¹⁵

Under the C2C Guidelines, VZ-MA has a performance standard in place to provide an “achieved flow-through” rate of 95 percent. Achieved flow-through is defined in the C2C Guidelines as the percentage of those order types that are designed to flow-through VZ-MA’s

³¹⁴ VZ-MA Application, Appdx. B, Vol. 34a, Tab 443 (VZ-MA’s Response to DTE-5-35).

³¹⁵ VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶¶ 65-67 (VZ-MA May OSS Aff.).

OSS that actually do flow-through.³¹⁶ VZ-MA has not yet begun reporting its measurements for “achieved flow-through,” but has reported total flow-through rates, which includes order types that are not designed to flow-through, for Massachusetts. For resale services in Massachusetts during the period of April through July 2000, VZ-MA reports total flow-through rates of 51.19 percent, 44.60 percent, 43.80 percent, and 42.41 percent. Additionally, during technical sessions held by the Department, VZ-MA testified that resale flow-through for the first 18 days of August was 53 percent.³¹⁷ Total flow-through rates for UNE services over the same four-month period were 38.41 percent, 30.35 percent, 38.47 percent, and 39.51 percent. During the first 18 days of August, VZ-MA testified that UNE flow-through rates were at 37 percent.³¹⁸

While the overall flow-through rates for CLECs in Massachusetts appear to be low, VZ-MA argues, and the Department agrees, the causes for such performance do not rest exclusively with VZ-MA. After reviewing flow-through performance disaggregated by CLEC, it became apparent that the abilities of individual CLECs to create complete and accurate LSRs has a significant impact on the rate of order flow-through. Among Massachusetts resellers, VZ-MA provided information showing that over the period of January through June 2000

³¹⁶ See VZ-MA Application, Appdx. B, Vol. 32a, Tab 423, ¶ 46 (VZ-MA May Measurements Aff.).

³¹⁷ VZ-MA Application, Appdx. B, Vol. 46, Tab 533, at 4578-79 (Transcript of Technical Session Held 8/21/00).

³¹⁸ Id.

individual resellers attained flow-through rates ranging from less than 5 percent to over 80 percent.³¹⁹ For CLECs ordering UNEs in Massachusetts, VZ-MA presented similar information showing that over the period of January through June 2000 individual CLECs achieved flow-through rates ranging from zero to more than 93 percent.³²⁰ These disaggregated figures show that while VZ-MA's overall flow-through performance appears low, VZ-MA's systems are quite capable of allowing CLECs and resellers to attain high levels of order flow-through and of sustaining future commercial volumes. In addition, these figures represent total flow-through, and, as noted above, a number of order types are not currently designed to flow-through and the order types that are designed to flow-through (e.g., UNE-P) represent a smaller percentage of the total orders in Massachusetts than they do in New York.

There are a number of factors that must be taken into account when examining VZ-MA's order flow-through performance. First, the CLEC's ability to provide a complete and accurate LSR, as discussed above, is an essential first step in determining whether or not an order will flow-through VZ-MA's OSS. The mix of orders CLECs submit has an equally large effect on flow-through rates. VZ-MA notes, for example, that order supplements and cancellations do not flow-through the company's OSS ordering systems.³²¹ VZ-MA explains

³¹⁹ VZ-MA Application, Appdx. B, Vol. 47, Tab 553 (VZ-MA's Response to RR-DTE-342).

³²⁰ Id.

³²¹ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 12 (VZ-MA August Supplemental (continued...))

that these types of transactions are not designed to flow through so that VZ-MA's TIS OC personnel can ensure that the original pending service order is not executed while the supplement or cancellation is being processed by the company's OSS.³²² VZ-MA states that nearly 40 percent of CLEC UNE-Loop orders, 17 percent of UNE-P orders, and 25 percent of resale orders fall into the category of supplements and cancellations.³²³ While VZ-MA has begun implementing system enhancement that will allow some of these supplements and cancellations to be processed on a flow-through basis, the volume of CLEC order supplements and cancellations has a significant effect on the overall flow-through rates. For example, VZ-MA notes that if order supplements and cancellations were excluded from the UNE-Loop flow-through calculation, VZ-MA's flow-through performance would increase by 67 percent.³²⁴ During technical sessions held by the Department, VZ-MA testified that if order supplements and cancellations were excluded from the flow-through calculations, VZ-MA's flow-through performance for the first 18 days of August would increase from 53 percent to 69 percent for

³²¹(...continued)
Measurements Aff.).

³²² Id.

³²³ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 38 (VZ-MA August Supplemental OSS Aff.).

³²⁴ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 12 (VZ-MA August Supplemental Measurements Aff.).

resale and from 37 percent to 62 percent for UNEs.³²⁵

In showing that it is providing nondiscriminatory access to its OSS ordering systems, VZ-MA must show that it is adequately processing not only those orders that flow-through its systems, but also that it has systems and measures in place to process efficiently those orders that do not flow-through. In order to meet these requirements, VZ-MA has four separate TIS OC work centers to perform the manual editing and processing of CLECs' non-flow-through orders, the Boston Resale Center to process resale orders, the Boston Platform Center to handle UNE-P orders, the DSL Center to address CLECs' xDSL and advanced services needs, and the UNE-Loop/Hot-Cut Center, which processes orders for non-complex UNEs.³²⁶ VZ-MA currently has 717 wholesale service representatives staffing the four TIS OC work centers, a 126 percent increase between November 1999 and July 2000.³²⁷ With specific regard to VZ-MA's resources for advanced services order processing, the DSL Center has a staff of 122 representatives specifically trained to handle xDSL and premium loop orders.³²⁸ VZ-MA developed its TIS OC staffing plans on the basis of a model developed by Andersen Consulting. VZ-MA notes that Andersen Consulting's analysis of VZ-MA's work center

³²⁵ VZ-MA Application, Appdx. B, Vol. 46, Tab 533, at 4578-79 (Transcript of Technical Session Held 8/21/00).

³²⁶ VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶ 69 (VZ-MA May OSS Aff.).

³²⁷ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 50 (VZ-MA August Supplemental OSS Aff.).

³²⁸ Id. at ¶53.

staffing incorporated a review of both current and projected future manual processing demands.³²⁹ As evidence that its TIS OC staffing levels are adequate to meet its manual order processing requirements, VZ-MA notes that its on-time performance in providing manual confirmation and reject notices exceeded C2C standards in June 2000.³³⁰

Apart from measuring the speed at which its TIS OC personnel perform their manual order processing duties, VZ-MA also measures the accuracy of the TIS OC's work through three service order accuracy metrics -- orders, opportunities, and LSRCs.³³¹ VZ-MA notes that the methods by which these measurements are calculated are flawed in certain respects, but contends that they understate, rather than overstate, the TIS OC's performance in manually processing CLEC orders. For example, the service order accuracy metrics count as errors any difference between the original valid LSR and the service order that is entered into VZ-MA's systems. These differences include not only errors created by TIS OC personnel, but also instances whereby TIS OC personnel corrected errors that the CLEC made on the original LSR.³³² VZ-MA also states that it has uncovered some instances of incorrect practices in the

³²⁹ VZ-MA Application, Appdx. B, Vol. 34a, Tab 443 (VZ-MA's Response to DTE-ATT-4-13).

³³⁰ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 48 (VZ-MA August Supplemental OSS Aff.).

³³¹ See VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶ 88 (VZ-MA May OSS Aff.).

³³² Id. at ¶ 89.

TIS OC that were causing inaccuracies on the service order, but that VZ-MA has corrected the cause for those errors and re-trained its TIS OC personnel under the correct methods and procedures.³³³ VZ-MA further explains that its strong performance in the area of installation quality³³⁴ reflects the company's position that its service order accuracy metrics do not reflect an inability to process manual orders efficiently and accurately.³³⁵

Because order rejection rates are highly dependent upon factors that VZ-MA cannot directly control, there is no C2C performance standard that VZ-MA must meet for order rejections. However, VZ-MA does report its order reject rate based upon a C2C-approved metric definition. VZ-MA states that its reported LSR reject rate is a misrepresentation of its actual performance with respect to CLEC orders. First, VZ-MA notes that while the C2C-approved calculation for its order reject rate includes in the numerator all rejected LSRs, the denominator only includes the number of valid LSRs rather than the total number of LSRs submitted, including rejected LSRs.³³⁶ VZ-MA explains that this calculation method could result in a reported order reject rate of greater than 100 percent. VZ-MA also notes that its

³³³ Id. at ¶¶ 90-94.

³³⁴ Installation quality metrics are addressed in detail under VZ-MA's provisioning OSS systems. See Section V.B.1.g.ii., below.

³³⁵ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 69 (VZ-MA August Supplemental OSS Aff.).

³³⁶ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 13 (VZ-MA August Supplemental Measurements Aff.).

calculation of the order reject rate also includes those orders that are manually corrected by the TIS OC rather than returned to the CLEC. These orders are included in the reject rate even though the CLECs never see them as errors. VZ-MA asserts that if these problems were corrected in the calculation, VZ-MA's order reject rates would be significantly lower than currently reported. The resale reject rates for April, May, and June would be, respectively, 33.8 percent (from 44.3 percent), 36.6 percent (from 48.3 percent), and 31.4 percent (from 39.3 percent). Similarly, recalculated UNE reject rates for the same time periods would be 12.5 percent (from 26.9 percent), 18.5 percent (from 29.1 percent), and 17.0 percent (from 20.8 percent).³³⁷

Similar to flow-through, the rate of order rejects is significantly impacted by CLECs' abilities to submit complete and accurate orders to VZ-MA's OSS. Disaggregated CLEC and reseller reject rate data shows that while some competitors in Massachusetts have experienced high rates of order rejects, others have had relatively few of their order submissions rejected by VZ-MA's systems. For resellers during the period of January through June 2000, reject rates range from less than 10 percent to well over 100 percent.³³⁸ During the same period, CLECs ordering UNEs have experienced reject rates as low as 13 percent and as high as 53

³³⁷ Id.

³³⁸ VZ-MA Application, Appdx. B, Vol. 47, Tab 553 (VZ-MA's Response to RR-DTE-342).

percent.³³⁹ While VZ-MA is responsible for providing CLECs with the information they need to produce accurate orders, the evidence of these wide ranges of reject rates between individual carriers shows that the efforts put forth by the CLECs in submitting accurate LSRs are very strongly tied to the overall order reject rates reported by VZ-MA.

VZ-MA currently does not transmit jeopardy notices to either CLECs or its own retail representatives. VZ-MA explains that it provides CLECs with access to jeopardy information through its Open Query System (“OQS”), which is updated three times daily and retains information for approximately thirty days. The OQS process was developed in collaboration with CLECs through proceedings held in New York. VZ-MA notes that its retail representatives must log directly into either the Service Order Processor (“SOP”) or the Work Force Administration (“WFA”) system to obtain jeopardy information or order status. CLECs also have the ability, through VZ-MA’s pre-ordering interfaces, to check order status directly in either the SOP or the WFA system.³⁴⁰ Though VZ-MA currently provides CLECs with parity to its retail representatives in terms of the availability of jeopardy information, in response to CLEC requests,³⁴¹ VZ-MA has agreed through the Change Management process to implement EDI jeopardy notification in October 2000. In the meantime, VZ-MA has set up an

³³⁹ Id.

³⁴⁰ VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶¶ 95-97 (VZ-MA May OSS Aff.).

³⁴¹ See, e.g., VZ-MA Application, Appdx. B, Vol. 37, Tab 455, ¶¶ 120-123 (WorldCom Lichtenberg/Sivori Decl.).

e-mail notification process to transmit jeopardy information to CLECs.³⁴²

VZ-MA provides two distinct completion notices to CLECs to signify that an order has been provisioned and processed through the company's billing systems. The first notice to be received by the CLEC is the Provisioning Completion Notice ("PCN"), which notifies the CLEC that all provisioning work has been finished and that the CLEC can then take responsibility for the provision of the end customer's service. VZ-MA notes that it began providing PCNs to CLECs in August 1999 to assuage concerns that there was a lag between the completion of the physical provisioning of an order and the processing of that order through VZ-MA's billing systems.³⁴³ Under the C2C Guidelines, VZ-MA must provide 95 percent of PCNs before noon on the day following work completion. VZ-MA sends all of its PCNs electronically over the same interface the CLEC used to submit the order.

Upon completion of the processing of an order through VZ-MA's billing systems, VZ-MA electronically submits to the CLEC a Billing Completion Notice ("BCN"), which notifies the CLEC that VZ-MA has made the necessary adjustments to the customer's account so that the CLEC may commence billing of that customer. VZ-MA provides BCNs to CLECs electronically over the same interface the CLEC used to submit the initial order. VZ-MA is required under the C2C Guidelines to provide 95 percent of BCNs to CLECs before noon on

³⁴² VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 71 (VZ-MA August Supplemental OSS Aff.).

³⁴³ VZ-MA Application, Appdx. B, Vol. 32b, Tab 423, ¶ 99 (VZ-MA May OSS Aff.).

the day following the date of billing completion, or the CRIS completion date. VZ-MA notes that it does not actively transmit to its retail representatives any completion notices. If retail representatives need to determine whether or not a particular order has been completed, they must check the SOP for the status of the order. VZ-MA notes that CLECs are also able to perform this type of inquiry if they have reason to require completion information before a PCN or BCN is generated.³⁴⁴ Finally, VZ-MA notes that it began providing fielded complex completion notices to CLECs as part of its June 2000 LSOG-4 software release.³⁴⁵

With respect to PCN on-time performance, VZ-MA met its requirement of 95 percent by noon the next business day in every month from April through July 2000 for both resale and UNE offerings. VZ-MA's BCN performance over the same period, however, did not achieve results as successful. With respect to resale services, VZ-MA's BCN on-time performances were 86.83 percent (April), 93.29 percent (May), 92.43 percent (June), and 99.24 percent (July). For UNE offerings, VZ-MA's performance was reported as 99.98 percent (April), 95.21 percent (May), 85.06 percent (June), and 96.85 percent (July). VZ-MA explains that the lower performance in resale and UNE BCN timeliness is the result of a system error that failed to time-stamp the completion notices, and the default value for the field caused some on-time BCNs to be erroneously scored as late. VZ-MA notes that it resolved this error on

³⁴⁴ Id.

³⁴⁵ VZ-MA Application, Appdx. B, Vol. 34b, Tab 443 (VZ-MA's Response to DTE-WorldCom-4-6).